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	ENTRY	SESSION
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FILE 'SCISEARCH' ENTERED AT 09:58:46 ON 20 JUN 1999
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=> s biochemical biophys?/rwk

L1 1279 BIOCHEMICAL BIOPHYS?/RWK
(BIOCHEMICAL BIOPHYS?/RWK)

=> e bbrc/rwk

E1 1 BBRACHYTHECIUM VANEK/RWK
E2 1 BBRACONIDAE 5 9/RWK
E3 965 --> BBRC/RWK
E4 3 BBRC BIOCH BIOPHYS R/RWK
E5 1 BBRC722/RWK
E6 1 BBREKING WAVES/RWK
E7 1 BBREAST CANCER BIOL/RWK
E8 1 BBRENT CHEM/RWK
E9 1 BBRFE902 BMFT FORSCH/RWK
E10 1 BBRFE902J32A83 BER/RWK
E11 1 BBRGM/RWK
E12 1 BBRIDGED AROMATIC CO/RWK

=> s e3-e5

965 BBRC/RWK
(BBRC/RWK)
3 "BBRC BIOCH BIOPHYS R"/RWK
("BBRC BIOCH BIOPHYS R"/RWK)
1 BBRC722/RWK
(BBRC722/RWK)
L2 969 (BBRC/RWK OR "BBRC BIOCH BIOPHYS R"/RWK OR BBRC722/RWK)

=> s l1 or l2

L3 2247 L1 OR L2

=> d his

(FILE 'HOME' ENTERED AT 09:54:49 ON 20 JUN 1999)

FILE 'SCISEARCH' ENTERED AT 09:58:46 ON 20 JUN 1999

E BIOCHEM?/RWK
E BIOCHEMIC?/RWK
E BIOCHEMICAL?/RWK
E BIOCHEMICAL/RWK
E BIOCHEMICAL BIO?/RWK
E BIOCHEMICAL BIOPHYS?/RWK
L1 1279 S BIOCHEMICAL BIOPHYS?/RWK
E BBRC/RWK
L2 969 S E3-E5

L3 2247 S L1 OR L2

=> s (tsuda e?/rau(s)1997/rpy) and l3

221 TSUDA E?/RAU
799458 1997/RPY
44 TSUDA E?/RAU(S)1997/RPY
L4 0 (TSUDA E?/RAU(S)1997/RPY) AND L3

=> s (tsuda e?/rau(s)1997/rpy) (s)l3

221 TSUDA E?/RAU
799458 1997/RPY
L5 0 (TSUDA E?/RAU(S)1997/RPY) (S)L3

=> file medline

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	12.60	13.65

FILE 'MEDLINE' ENTERED AT 10:05:44 ON 20 JUN 1999

FILE LAST UPDATED: 18 JUN 1999 (19990618/UP). FILE COVERS 1966 TO DATE.

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THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE
SUBSTANCE IDENTIFICATION.

=> s osteoclast?(2a) (inhibit? or suppress?)

6819 OSTEOCLAST?
777302 INHIBIT?
160552 SUPPRESS?
L6 635 OSTEOCLAST?(2A) (INHIBIT? OR SUPPRESS?)

=> s osteoclast?(a) (inhibit? or suppress?)

6819 OSTEOCLAST?
777302 INHIBIT?
160552 SUPPRESS?
L7 336 OSTEOCLAST?(A) (INHIBIT? OR SUPPRESS?)

=> d kwic

L7 ANSWER 1 OF 336 MEDLINE
AB . . . level, too, must lie the explanation of how bisphosphonates
address not only cancer osteolysis but also the tumor burden. By
inhibiting **osteoclasts***, the drugs may block a
cancer-related vicious cycle.

=> s (osteoclast?(1a) (inhibit? or suppress?)) (1a) factor#

6819 OSTEOCLAST?
777302 INHIBIT?
160552 SUPPRESS?
1479283 FACTOR#
L8 33 (OSTEOCLAST?(1A) (INHIBIT? OR SUPPRESS?)) (1A) FACTOR#

=> d au ti so an jt la 1-33

L8 ANSWER 1 OF 33 MEDLINE
AU Kotake S; Udagawa N; Takahashi N; Matsuzaki K; Itoh K; Ishiyama S;
Saito
S; Inoue K; Kamatani N; Gillespie M T; Martin T J; Suda T
TI IL-17 in synovial fluids from patients with rheumatoid arthritis is a
potent stimulator of osteoclastogenesis.
SO JOURNAL OF CLINICAL INVESTIGATION, (1999 May) 103 (9) 1345-52.
Journal code: HS7. ISSN: 0021-9738.
AN 1999242632 MEDLINE
JT JOURNAL OF CLINICAL INVESTIGATION
JT J Clin Invest
LA English

L8 ANSWER 2 OF 33 MEDLINE
AU Nagai M; Sato N
TI Reciprocal gene expression of ***osteoclastogenesis***
inhibitory ***factor*** and osteoclast differentiation
factor
regulates osteoclast formation.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1999 Apr 21) 257
(3)
719-23.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1999225296 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 3 OF 33 MEDLINE
AU Kodaira K; Kodaira K; Mizuno A; Yasuda H; Shima N; Murakami A; Ueda M;
Higashio K
TI Cloning and characterization of the gene encoding mouse osteoclast
differentiation factor.
SO GENE, (1999 Apr 1) 230 (1) 121-7.
Journal code: FOP. ISSN: 0378-1119.
AN 1999214075 MEDLINE

JT GENE
JT Gene
LA English

L8 ANSWER 4 OF 33 MEDLINE
AU Takahashi N; Udagawa N; Suda T
TI A new member of tumor necrosis factor ligand family, ODF/OPGL/TRANCE/RANKL, regulates osteoclast differentiation and function.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1999 Mar 24) 256 (3)
449-55. Ref: 55
Journal code: 9Y8. ISSN: 0006-291X.
AN 1999182310 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 5 OF 33 MEDLINE
AU Ninomiya J T; Bi Y; Banks M A; Lavish S A; Goldberg V M; Greenfield E M
TI Bone marrow cells produce soluble ***factors*** that ***inhibit*** ***osteoclast*** activity.
SO JOURNAL OF ORTHOPAEDIC RESEARCH, (1999 Jan) 17 (1) 51-8.
Journal code: JIQ. ISSN: 0736-0266.
AN 1999171655 MEDLINE
JT JOURNAL OF ORTHOPAEDIC RESEARCH
JT J Orthop Res
LA English

L8 ANSWER 6 OF 33 MEDLINE
AU Nakagawa N; Kinoshita M; Yamaguchi K; Shima N; Yasuda H; Yano K; Morinaga T; Higashio K
TI RANK is the essential signaling receptor for osteoclast differentiation factor in osteoclastogenesis.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 Dec 18) 253 (2)
395-400.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1999097247 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 7 OF 33 MEDLINE
AU Akatsu T; Murakami T; Ono K; Nishikawa M; Tsuda E; Mochizuki S I; Fujise N; Higashio K; Motoyoshi K; Yamamoto M; Nagata N
TI ***Osteoclastogenesis*** ***inhibitory*** ***factor*** exhibits hypocalcemic effects in normal mice and in hypercalcemic nude mice carrying tumors associated with humoral hypercalcemia of malignancy.
SO BONE, (1998 Dec) 23 (6) 495-8.
Journal code: ASR. ISSN: 8756-3282.
AN 1999071099 MEDLINE
JT BONE
JT Bone
LA English

L8 ANSWER 8 OF 33 MEDLINE
AU Murakami T; Yamamoto M; Ono K; Nishikawa M; Nagata N; Motoyoshi K; Akatsu T
TI Transforming growth factor-beta1 increases mRNA levels of ***osteoclastogenesis*** ***inhibitory*** ***factor*** in osteoblastic/stromal cells and inhibits the survival of murine osteoclast-like cells.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 Nov 27) 252 (3)
747-52.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1999057573 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 9 OF 33 MEDLINE
AU Gao Y H; Shinki T; Yuasa T; Kataoka-Enomoto H; Komori T; Suda T; Yamaguchi A
TI Potential role of cbfal, an essential transcriptional factor for osteoblast differentiation, in osteoclastogenesis: regulation of mRNA expression of osteoclast differentiation factor (ODF).
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 Nov 27) 252 (3)
697-702.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1999057564 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 10 OF 33 MEDLINE
AU Hakeda Y; Kobayashi Y; Yamaguchi K; Yasuda H; Tsuda E; Higashio K; Miyata T; Kumegawa M
TI ***Osteoclastogenesis*** ***inhibitory*** ***factor*** (OCIF)

directly inhibits bone-resorbing activity of isolated mature osteoclasts.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 Oct 29) 251 (3)
796-801.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1999008904 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 11 OF 33 MEDLINE
AU Akatsu T; Murakami T; Nishikawa M; Ono K; Shinomiya N; Tsuda E; Mochizuki S; Yamaguchi K; Kinoshita M; Higashio K; Yamamoto M; Motoyoshi K; Nagata N
TI ***Osteoclastogenesis*** ***inhibitory*** ***factor*** ***suppresses*** ***osteoclast*** survival by interfering in the interaction of stromal cells with osteoclast.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 Sep 18) 250 (2)
229-34.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1998440780 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 12 OF 33 MEDLINE
AU Takai H; Kanematsu M; Yano K; Tsuda E; Higashio K; Ikeda K; Watanabe K; Yamada Y
TI Transforming growth factor-beta stimulates the production of osteoprotegerin/ ***osteoclastogenesis*** ***inhibitory*** ***factor*** by bone marrow stromal cells.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Oct 16) 273 (42) 27091-6.
Journal code: HIV. ISSN: 0021-9258.
AN 1998438470 MEDLINE
JT JOURNAL OF BIOLOGICAL CHEMISTRY
JT J Biol Chem
LA English

L8 ANSWER 13 OF 33 MEDLINE
AU Yamamoto M; Murakami T; Nishikawa M; Tsuda E; Mochizuki S; Higashio K; Akatsu T; Motoyoshi K; Nagata N
TI Hypocalcemic effect of ***osteoclastogenesis*** ***inhibitory*** ***factor*** /osteoprotegerin in the thyroparathyroidectomized rat.
SO ENDOCRINOLOGY, (1998 Sep) 139 (9) 4012-5.
Journal code: EGZ. ISSN: 0013-7227.
AN 1998389452 MEDLINE
JT ENDOCRINOLOGY
JT Endocrinology
LA English

L8 ANSWER 14 OF 33 MEDLINE
AU Mizuno A; Murakami A; Nakagawa N; Yasuda H; Tsuda E; Morinaga T; Higashio K
TI Structure of the mouse ***osteoclastogenesis*** ***inhibitory*** ***factor*** (OCIF) gene and its expression in embryogenesis.
SO GENE, (1998 Jul 30) 215 (2) 339-43.
Journal code: FOP. ISSN: 0378-1119.
AN 1998382527 MEDLINE
JT GENE
JT Gene
LA English

L8 ANSWER 15 OF 33 MEDLINE
AU Morinaga T; Nakagawa N; Yasuda H; Tsuda E; Higashio K
TI Cloning and characterization of the gene encoding human osteoprotegerin/ ***osteoclastogenesis*** - ***inhibitory*** ***factor*** .
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1998 Jun 15) 254 (3) 685-91.
Journal code: EMZ. ISSN: 0014-2956.
AN 1998351569 MEDLINE
JT EUROPEAN JOURNAL OF BIOCHEMISTRY
JT Eur J Biochem
LA English

L8 ANSWER 16 OF 33 MEDLINE
AU Mizuno A; Amizuka N; Irie K; Murakami A; Fujise N; Kanno T; Sato Y; Nakagawa N; Yasuda H; Mochizuki S; Gomibuchi T; Yano K; Shima N; Washida N; Tsuda E; Morinaga T; Higashio K; Ozawa H
TI Severe osteoporosis in mice lacking ***osteoclastogenesis*** ***inhibitory*** ***factor*** /osteoprotegerin.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 Jun 29) 247 (3)
610-5.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1998321175 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 17 OF 33 MEDLINE
AU Yasuda H
TI ***Osteoclastogenesis*** ***inhibitory*** ***factor***

(OCIF).

SO SEIKAGAKU. JOURNAL OF JAPANESE BIOCHEMICAL SOCIETY, (1998 May) 70 (5) 385-90. Ref: 7
Journal code: ILZ. ISSN: 0037-1017.
AN 1998319072 MEDLINE
JT SEIKAGAKU. JOURNAL OF JAPANESE BIOCHEMICAL SOCIETY
JT Seikagaku
LA Japanese

L8 ANSWER 18 OF 33 MEDLINE
AU Tsuda E; Higashio K
TI ***Osteoclastogenesis*** ***inhibitory*** ***factor***
(OCIF)/OPG.
SO NIPPON RINSHO. JAPANESE JOURNAL OF CLINICAL MEDICINE, (1998 Jun) 56 (6) 1435-9. Ref: 16
Journal code: KIM. ISSN: 0047-1852.
AN 1998312267 MEDLINE
JT NIPPON RINSHO. JAPANESE JOURNAL OF CLINICAL MEDICINE
JT Nippon Rinsho
LA Japanese

L8 ANSWER 19 OF 33 MEDLINE
AU Brandstrom H; Jonsson K B; Ohlsson C; Vidal O; Ljunghall S; Ljunggren O
TI Regulation of osteoprotegerin mRNA levels by prostaglandin E2 in human bone marrow stroma cells.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 Jun 18) 247 (2) 338-41.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1998308117 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 20 OF 33 MEDLINE
AU Tsukii K; Shima N; Mochizuki S; Yamaguchi K; Kinoshita M; Yano K; Shibata O; Udagawa N; Yasuda H; Suda T; Higashio K
TI Osteoclast differentiation factor mediates an essential signal for bone resorption induced by 1 alpha,25-dihydroxyvitamin D3, prostaglandin E2, or parathyroid hormone in the microenvironment of bone.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 May 19) 246 (2) 337-41.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1998273279 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 21 OF 33 MEDLINE
AU Fojtik Z; Kandusova M
TI [Bisphosphonates, their mechanism of action and properties useful in the therapy of metabolic bone diseases].
SO VNITRNI LEKARSTVI, (1997 Apr) 43 (4) 234-7.
Journal code: XFY. ISSN: 0042-773X.
AN 1998264149 MEDLINE
JT VNITRNI LEKARSTVI
JT Vnitř Lek
LA Czech

L8 ANSWER 22 OF 33 MEDLINE
AU Matsuzaki K; Udagawa N; Takahashi N; Yamaguchi K; Yasuda H; Shima N; Morinaga T; Toyama Y; Yabe Y; Higashio K; Suda T
TI Osteoclast differentiation factor (ODF) induces osteoclast-like cell formation in human peripheral blood mononuclear cell cultures.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 May 8) 246 (1) 199-204.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1998262941 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 23 OF 33 MEDLINE
AU Tomoyasu A; Goto M; Fujise N; Mochizuki S; Yasuda H; Morinaga T; Tsuda E; Higashio K
TI Characterization of monomeric and homodimeric forms of ***osteoclastogenesis*** ***inhibitory*** ***factor***.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 Apr 17) 245 (2) 382-7.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1998238645 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 24 OF 33 MEDLINE
AU Yasuda H; Shima N; Nakagawa N; Yamaguchi K; Kinoshita M; Mochizuki S; Tomoyasu A; Yano K; Goto M; Murakami A; Tsuda E; Morinaga T; Higashio K; Udagawa N; Takahashi N; Suda T
TI Osteoclast differentiation factor is a ligand for osteoprotegerin/ ***osteoclastogenesis*** - ***inhibitory*** ***factor*** and is identical to TRANCE/RANKL.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1998 Mar 31) 95 (7) 3597-602.
Journal code: PV3. ISSN: 0027-8424.
AN 1998188248 MEDLINE
JT PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA
JT Proc Natl Acad Sci U S A
LA English

L8 ANSWER 25 OF 33 MEDLINE
AU Yasuda H; Shima N; Nakagawa N; Mochizuki S I; Yano K; Fujise N; Sato Y; Goto M; Yamaguchi K; Kuriyama M; Kanno T; Murakami A; Tsuda E; Morinaga T; Higashio K
TI Identity of ***osteoclastogenesis*** ***inhibitory*** ***factor*** (OCIF) and osteoprotegerin (OPG): a mechanism by which OPG/OCIF inhibits osteoclastogenesis in vitro.
SO ENDOCRINOLOGY, (1998 Mar) 139 (3) 1329-37.
Journal code: EGZ. ISSN: 0013-7227.
AN 1998151033 MEDLINE
JT ENDOCRINOLOGY
JT Endocrinology
LA English

L8 ANSWER 26 OF 33 MEDLINE
AU Yamaguchi K; Kinoshita M; Goto M; Kobayashi F; Tsuda E; Morinaga T; Higashio K
TI Characterization of structural domains of human ***osteoclastogenesis*** ***inhibitory*** ***factor***.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1998 Feb 27) 273 (9) 5117-23.
Journal code: HIV. ISSN: 0021-9258.
AN 1998148058 MEDLINE
JT JOURNAL OF BIOLOGICAL CHEMISTRY
JT J Biol Chem
LA English

L8 ANSWER 27 OF 33 MEDLINE
AU Miyamoto A; Kunisada T; Hemmi H; Yamane T; Yasuda H; Miyake K; Yamazaki H; Hayashi S I
TI Establishment and characterization of an immortal macrophage-like cell line inducible to differentiate to osteoclasts.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 Jan 26) 242 (3) 703-9.
Journal code: 9Y8. ISSN: 0006-291X.
AN 1998125557 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 28 OF 33 MEDLINE
AU Tsuda E; Goto M; Mochizuki S; Yano K; Kobayashi F; Morinaga T; Higashio K
TI Isolation of a novel cytokine from human fibroblasts that specifically inhibits osteoclastogenesis.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1997 May 8) 234 (1) 137-42.
Journal code: 9Y8. ISSN: 0006-291X.
AN 97312536 MEDLINE
JT BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS
JT Biochem Biophys Res Commun
LA English

L8 ANSWER 29 OF 33 MEDLINE
AU Yu X; Scholler J; Foged N T
TI Interaction between effects of parathyroid hormone and bisphosphonate on regulation of osteoclast activity by the osteoblast-like cell line UMR-106.
SO BONE, (1996 Oct) 19 (4) 339-45.
Journal code: ASR. ISSN: 8756-3282.
AN 97049409 MEDLINE
JT BONE
JT Bone
LA English

L8 ANSWER 30 OF 33 MEDLINE
AU Jimi E; Shuto T; Ikebe T; Jingushi S; Hirata M; Koga T
TI Basic fibroblast growth ***factor*** ***inhibits*** ***osteoclast*** -like cell formation.
SO JOURNAL OF CELLULAR PHYSIOLOGY, (1996 Aug) 168 (2) 395-402.
Journal code: HNB. ISSN: 0021-9541.
AN 96321055 MEDLINE
JT JOURNAL OF CELLULAR PHYSIOLOGY
JT J Cell Physiol
LA English

L8 ANSWER 31 OF 33 MEDLINE
AU Rowe D J; Leung W W; Del Carlo D L

TI ***Osteoclast*** ***inhibition*** by ***factors*** from
cells
associated with regenerative tissue.
S0 JOURNAL OF PERIODONTOLOGY, (1996 Apr) 67 (4) 414-21.
Journal code: JMT. ISSN: 0022-3492.
AN 96310257 MEDLINE
JT JOURNAL OF PERIODONTOLOGY
JT J Periodontol
LA English

L8 ANSWER 32 OF 33 MEDLINE
AU Roodman G D
TI Role of cytokines in the regulation of bone resorption.
S0 CALCIFIED TISSUE INTERNATIONAL, (1993) 53 Suppl 1 S94-8. Ref: 39
Journal code: CGH. ISSN: 0171-967X.
AN 94101496 MEDLINE
JT CALCIFIED TISSUE INTERNATIONAL
JT Calcif Tissue Int
LA English

L8 ANSWER 33 OF 33 MEDLINE
AU Van Beek E; Van der Wee-Pals L; van de Ruit M; Nijweide P; Papapoulos S;
Lowik C
TI Leukemia inhibitory ***factor*** ***inhibits***
osteoclastic resorption, growth, mineralization, and
alkaline
phosphatase activity in fetal mouse metacarpal bones in culture.
S0 JOURNAL OF BONE AND MINERAL RESEARCH, (1993 Feb) 8 (2) 191-8.
Journal code: 130. ISSN: 0884-0431.
AN 93182628 MEDLINE
JT JOURNAL OF BONE AND MINERAL RESEARCH
JT J Bone Miner Res
LA English

=> d ab 24, 33, 31

L8 ANSWER 24 OF 33 MEDLINE
AB Osteoclasts, the multinucleated cells that resorb bone, develop from
hematopoietic cells of monocyte/macrophage lineage. Osteoclast-like
cells
(OCLs) are formed by coculturing spleen cells with osteoblasts or bone
marrow stromal cells in the presence of bone-resorbing factors. The
cell-to-cell interaction between osteoblasts/stromal cells and
osteoclast
progenitors is essential for OCL formation. Recently, we purified and
molecularly cloned ***osteoclastogenesis*** - ***inhibitory***
factor (OCIF), which was identical to osteoprotegerin (OPG).
OPG/OCIF is a secreted member of the tumor necrosis factor receptor
family
and inhibits osteoclastogenesis by interrupting the cell-to-cell
interaction. Here we report the expression cloning of a ligand for
OPG/OCIF from a complementary DNA library of mouse stromal cells. The
protein was found to be a member of the membrane-associated tumor
necrosis
factor ligand family and induced OCL formation from osteoclast
progenitors. A genetically engineered soluble form containing the
extracellular domain of the protein induced OCL formation from spleen
cells in the absence of osteoblasts/stromal cells. OPG/OCIF abolished
the
OCL formation induced by the protein. Expression of its gene in
osteoblasts/stromal cells was up-regulated by bone-resorbing factors.
We
conclude that the membrane-bound protein is osteoclast differentiation
factor (ODF), a long-sought ligand mediating an essential signal to
osteoclast progenitors for their differentiation into osteoclasts. ODF
was
found to be identical to TRANCE/RANKL, which enhances T-cell growth
and
dendritic-cell function. ODF seems to be an important regulator in not
only osteoclastogenesis but also immune system.

L8 ANSWER 33 OF 33 MEDLINE
AB Leukemia inhibitory factor (LIF) has been reported to affect bone
metabolism, but results are variable. We examined the effect of mouse
recombinant LIF on osteoclastic resorption in fetal bone explants
representing different stages of osteoclast development. In cultures
of
17-day-old fetal mouse metacarpals in which only osteoclast
progenitors
and precursors are present, resorption (measured as ⁴⁵Ca release) was
significantly inhibited to 29.2% and to 96.6% in the presence of LIF
100
and 1000 U/ml, respectively. Histologic examination of the explants
treated with 1000 U/ml of LIF confirmed the biochemical findings and
showed that osteoclast progenitors and precursors remained in the
periosteum and did not invade the mineralized matrix. In metacarpals
of
older fetuses (18- and 19-day-old) in which the mineralized cartilage
has
been invaded by mature osteoclasts, the inhibition of resorption by
LIF
(1000 U/ml) was 87.9 and 74.7%, respectively, the latter being
significantly less than the inhibition observed in 17-day-old
metacarpal
cultures. The inhibitory effect of LIF was absent during concurrent
administration of PTH or 1,25-(OH)₂D₃ and could be reversed by PTH. In
addition, LIF was found to inhibit growth, mineralization, and
alkaline
phosphatase activity in metacarpals independently of osteoclastic

resorption. These results suggest that LIF affects the development
rather
than the activity of osteoclasts, probably through an effect on the
osteogenic cells. LIF may be an important endogenous regulator of bone
metabolism.

L8 ANSWER 31 OF 33 MEDLINE
AB Guided tissue regeneration (GTR) uses expanded polytetrafluoroethylene
(ePTFE) membranes to favor the repopulation of the healing wound with
cells with bone regenerative potential. As bone remodeling is a
tightly
coupled process, inhibition of osteoclast-mediated bone resorption may
be
critical to regeneration. Thus, this study was undertaken to determine
whether cells associated with regenerative tissue can inhibit
osteoclast
differentiation and activity and to begin characterizing and
identifying
the factor(s) mediating the observed effects. Conditioned media were
harvested from human periodontal cell lines established in culture:
cells
adherent to ePTFE membranes, recovered from patients after GTR; cells
adherent to ePTFE augmentation membranes, recovered from edentulous
ridge
augmentation procedures; and periodontal ligament cells from
periodontally
healthy bicuspid. Conditioned medium from each of these regenerative
cell
lines reduced the number of tartrate-resistant acid
phosphatase-positive
osteoclast-like cells formed from hemopoietic precursors in mouse bone
marrow cultures. Also, both the total resorbed surface area and number
of
resorption pits formed by these cells on calcium phosphate ceramic
films
were reduced. The factor in the conditioned medium which inhibited
osteoclast differentiation was soluble, heat labile, and resided in
the
lower molecular weight (< 30 kDa) fraction, the same fraction which
would
contain cytokines. Western blot analysis of the conditioned medium
detected a band at the molecular weight of interferon gamma
(IFN-gamma),
using a polyclonal rabbit anti-human IFN-gamma. Thus, the factor in
the
conditioned medium with inhibitory activity may have identity with
IFN-gamma or one of the other anti-inflammatory cytokines.

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FILE 'SCISEARCH' ENTERED AT 09:58:46 ON 20 JUN 1999

E BIOCHEM?/RWK
E BIOCHEMIC?/RWK
E BIOCHEMICAL?/RWK
E BIOCHEMICAL/RWK
E BIOCHEMICAL BIO?/RWK
E BIOCHEMICAL BIOPHYS?/RWK
L1 1279 S BIOCHEMICAL BIOPHYS?/RWK
E BBRC/RWK
L2 969 S E3-E5
L3 2247 S L1 OR L2
L4 0 S (TSUDA E?/RAU(S)1997/RPY) AND L3
L5 0 S (TSUDA E?/RAU(S)1997/RPY) (S)L3

FILE 'MEDLINE' ENTERED AT 10:05:44 ON 20 JUN 1999

635 S OSTEOCLAST?(2A) (INHIBIT? OR SUPPRESS?)
L7 336 S OSTEOCLAST?(A) (INHIBIT? OR SUPPRESS?)
L8 33 S (OSTEOCLAST?(1A) (INHIBIT? OR SUPPRESS?)) (1A) FACTOR#

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E BIOCHEM?/RWK
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E BIOCHEMICAL/RWK
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755 OSTEOCLAST?
273428 INHIBIT?
132909 SUPPRESS?
446478 FACTOR#

$$\Rightarrow d \log x; \log y$$

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